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National Welfare Through Standardized Reports of Industrial Experience

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THE majority of American business men prefer to take a chance rather than act on the basis of facts. In many instances experience is never recorded and studied, and its lessons are disregarded.

Shortly after the armistice was signed a representative of the War Department visited a concern to close a contract and pay the actual costs incurred in its performance. The contractor showed him two drawers of papers and told him to go ahead. One drawer was filled with an accumulation of invoices; the other contained cancelled checks. Needless to say, the contractor still awaits a settlement.

Many attempts to set up adequate records fall short of their purpose. The results are characterized by inaccuracy, incompleteness and a lack of serviceability. Probably the figures turned in are derived from unreliable sources,—from memoranda which never are proven with the general books of account. The method of computation may be at fault. Frequently accurate data are presented in a fashion which discourages their study and employment. They are contained in unstandardized reports, which lack the comparative feature, and which are nothing more than a maze of figures.

About two years ago the superintendent of a certain Pennsylvania concern received a statement which showed that in one line of its product the cost of goods sold was twice the ruling market price. This report was allowed to remain on his desk until finally it was forgotten and thrown into the waste basket. Six months later the concern was insolvent. The most elaborate record system is of little value unless it leads to economies and improvements.

Record systems are lacking or they fall short because those in charge of industry do not insist on having something better. Owners and managers must be persuaded to renounce guesswork

control; they must be convinced that their industry or their concern can attain its maximum efficiency only when a true science is built up concerning it.¹

Running business by guess and gamble is a costly process. It results in unwarranted capital investment, with attendant methods of waste; it leads to overexpansion of credit, unprofitable marketing campaigns and periods of depression, with their sharp and painful adjustments throughout the entire economic structure. If production could be attended with less risk, and could be conducted according to sound principles, the nation's economic surplus would be enormously increased. Standardized reports of industrial experience are the basis upon which industrial science can be developed.

STANDARDIZED UNIFORM RECORD SYSTEMS

Standardized uniform record systems are not an innovation. The railroads of the country have been keeping their books according to a prescribed plan for almost a dozen years. It is true, however, that their detailed methods of cost-keeping are still in the process of development. State public service commissions are laying down accounting systems for water companies, for heat, light and power companies and for street railways.² The private industries of the country in a number of instances have taken steps along the same line. Noteworthy progress has been made by the manufacturers of machine tools, furniture, elevators, paper boxes, envelopes, cut glass and shoes. The printing and lithographing houses have been developing uniform methods of recording costs, equipment performance and personal efficiency. Bankers and brokers also have applied the principle of standardization to their records.

It is gratifying to note that this movement was given new impetus at the recent annual convention of the chambers of commerce of the United States, at which a unanimous resolution was passed favoring a system of uniform cost accounting in each industry. This endorsement, by approximately three thousand

¹ The Federal Trade Commission has estimated that 90 per cent of American corporations are without adequate cost data.

² See *Classification of Accounts and Special Forms* published by Bureau of Accounts and Statistics, Pennsylvania Public Service Commission.

men representing all lines of industrial and commercial interests, is a measure of the favor with which American business regards standardization in the matter of records and reports.

The breadth and force of this movement must be increased greatly before the time will be ripe for its application to industry in general. When complete and uniform record keeping is a matter of practice, a foundation of facts concerning our economic life will be available upon which many improvements in national welfare can be built.

SOME OF THE RESULTS THAT MAY BE EXPECTED

(A) *An Index of Efficiency*

American business has been termed inefficient, but no one can say to what degree, or whether it is more inefficient than the business of any other country. Efficiency is a relative term in any case. A widespread conviction exists, however, that there is plenty of room for improvement in the administration of the nation's business. The reason why there are comparatively so few failures under the circumstances is that business is inefficient generally, and the concerns that are on the ragged edge as marginal producers are simply less efficient than the rest, or they are operating under unfavorable conditions beyond which they have little or no control, such as poor location or limited capital.

The significant feature of industrial inefficiency is that not all concerns are lacking in the same respect. One is unusually well-managed in one department; the other is exceptionally strong in another department. The problem before each one is to find its "weak spot," and then take measures to correct the situation there.

The source of inefficiency could be located if composite statistics derived from the entire industry were in the hands of each concern. By comparing its records with the average, each one could discover in what respect it was unusually good or unusually bad. Of course the normal situation could be summarized only from accounts and reports kept and rendered uniformly throughout the industry. A complete composite record, currently calculated for each line of commercial and industrial enterprise, is the real statistical need of business. What the sales or costs were a year ago, compared with what they are at present, and other simi-

lar relationships, do not reflect the weaknesses of the concern as compared with its rivals. These matters are local history. To rely on them is like running a race backwards, with no knowledge of the speed of your opponents.

During the war the Federal Trade Commission compiled average figures of the costs of mining coal in each field where the general conditions of operation were similar. The array of facts which it collected show the possibilities of standardized reports of industrial experience. Suppose the chart covering the Illinois field were published and sent to the operators in that district. It would show that 30 per cent of the coal mined in the field cost x.xx; 50 per cent cost x.xx and 80 per cent cost x.xx; and schedules of component items would accompany the aggregate figures. Each operator could compare his costs with the standard computed from the reports of his business associates. Suppose his expenses were above the average. He could locate the source of excess cost, whether it is a matter of royalties, depreciation, wages, ventilation, drainage or what not.

Costs of production are but one side of the question. The chart also would show the average price received for the coal f. o. b. mine. Each operator could check his gross receipts per ton against the prices realized by the others in the field. The comparison would show the competency of his sales organization.

The extent to which detailed records of equipment performance and other similar memoranda are to be kept, could be prescribed with the assurance that the results would pay for the expense incurred many times over. The beater records in paper mills, the facts of oil consumption on the various divisions and in the several branches of locomotive service on the Louisville and Nashville Railroad, and the location, frequency and cause of breakdowns in pipe lines as recorded by many water companies are typical of the equipment data that can be used to save money.

Records of personal efficiency have a field of unbounded utility. Through them the worker can see his contribution to the product of the plant, watch his progress from day to day, and gauge his worth as compared with that of his fellows. A very optimistic view of records of individual workmanship was expressed by Mr. Robert B. Wolf, whose experience along this line led him to say:

The most democratic industrial plant is the one which permits the fullest amount of individual freedom to each member, irrespective of his position, and, at the same time, is so sensitively adjusted that *it reflects immediately the result of his actions*. If his actions result in injury to others he will see that as a part of the whole, he himself must also suffer. An organization of this kind can never be used by the employer to exploit the employe, for *it will continually be demonstrating to both that the success of any one part of the organization is absolutely dependent upon that of every other part, and therefore upon the success of the whole.*³

There is no intent to convey the impression that a system of records can be evolved which will give ready-to-use formulae that can be applied by a novice to reveal the vital facts of any business or of industry in general. Figures and data must be used by those who understand the conditions underlying their derivation, otherwise the most unwarranted assumptions may be made. For example, a flat comparison of the expenditures and revenues of railroads throughout the United States would be most misleading on account of the different physical and economic regions in which they operate.

Some will say that any situation reflected by statistics can be explained or excused by a party intimately associated with it. This may be so in the first instance, but a constant course of explanation on his part is pretty good evidence of an unsound condition. Moreover his supply of excuses will diminish and detection will become correspondingly easy.

The provision of a "clinical thermometer of industry" through composite statistics will point the way to progress, but it will do nothing of itself. Statistics will aid in the diagnosis, but they will not effect the cure. The management of the concern must apply the proper remedy.

(B) Capital Will Be Directed to Productive Fields

The financial interests of the country will be benefited by standardized reports of industrial experience. The investing public will be furnished with facts concerning the normal realization on investment in many lines. The concern that is not up to the standard can be noted. Dividends alone will no longer be the criterion of value,—assets, liabilities, revenues and expenditures can be intelligently scrutinized. The buyer of securities will have a guide to aid him in the investment of his funds.

³ "The Creative Workman," Technical Ass'n. of Pulp & Paper Industry, New York, 1918, p. 13.

Banks and credit advancing institutions insist upon a financial statement from the borrower before they decide upon the line of credit to be extended to him. Suppose that bankers were provided with figures showing the normal conditions in the industry, —the average relative strength of the several items on its balance sheets and the average earning power of the concerns engaged in it. Decision upon the proper line of credit to allow would be facilitated, risk would be less, other things being equal, interest rates would be lower, and the loss to the public through the misdirection of the flow of capital would be materially lessened. The development of standard business records will also be a means of safeguarding against the contraction of bad debts, since the debtor's statements could be readily analyzed, and his limit of credit decided with assurance.

Where the management of an enterprise is separate from the ownership, as frequently obtains with corporations, the owners could carefully review the work of their administrative agents. Composite data secured from uniform records would be the means of fashioning the strongest sort of a club to wield over the heads of inefficient managers. The ownership would be able to criticize the conduct of the business in the light of the experience and progress of its associates in the same industry.

(C) Facts Will Be Available for the Discussion of Problems of Wealth Distribution

The problems connected with the distribution of wealth are further from solution than those concerned with its creation. Facts about the distributive process will be of the greatest help to those who are trying earnestly to establish more equitable relations between capitalist, manager and wage-earner.

"Profiteering" has been decried over the length and breadth of the land, and the "profiteer," whoever and wherever he may be, has been branded a traitor and a scoundrel. But who is a "profiteer," and just what is "profiteering?" These terms have not been defined, nor can they be until the shares of the surplus wealth taken by each of the groups engaged in production are known. Only then can the public decide what a "fair return" and a "fair wage" is, and who the "profiteers" are. It may develop that those most vehement in their denunciations are not without sullied hands.

If a system of records is used to establish new piece rates which lower the wage for an equivalent amount of work, it will be serving a perverted function. On the other hand, if it is a means of promoting industry, initiative and loyalty, and a device which selects those to receive increased wages and be given places of larger opportunity and responsibility, it will be employed in the best interests of all. The immediate results of a perverted use of uniform records will blind the public to the more or less vague benefits which they promise in the distant future.

Complete and standardized records of industrial experience will be of tremendous value to a board of labor arbitration. The figures will stand for or against the worker according to the way they compare with the general wage level in his industry or in other industries in which the work done is similar to his own. Knowledge of the facts will further a compromise of justice, and will enable the public to voice its approval or disapproval of the award.

While the identity of the individual company was not disclosed, the records of the Federal Trade Commission showed that one operator was charging over a dollar for administrative salaries and expenses per ton of coal mined. Most of the companies were charging under ten cents per ton for this item. A discrepancy so large is unwarranted on its face, and would seem to indicate an abnormal appropriation of the earnings of the mine by its managers. Suppose this were the case, and the wage-earners were suffering in consequence. Would not a board of arbitration have some very good evidence upon which to act?

(D) The Education of the Consumer Along Economic Lines

Information concerning the cost of doing business, the gross return for goods and services sold and the net income to owners, managers and workers will be a means of educating the consumer along economic lines. One of the sources of economic discord in the past has been the consumer's ignorance of the effect of his whims and desires upon the machinery of production. To what extent could the welfare of the nation be promoted if the consumer were educated to approximate his demands in all lines to the available supply as he was in a few respects during the recent food and fuel conservation campaigns?

In seasonal industries production runs at top speed for a period, and then it is discontinued for probably the balance of the year. As a consequence capital and labor are alternately overworked and idle. This condition results in general inefficiency and high prices, not to mention the distress of the workers affected by unemployment. Another opportunity for the conservation of waste through the education of the consumer is to teach him to give increased favor to standardized articles. If the public knows about the problems confronting its business, it can better mitigate the suffering and friction they cause, and coöperate to further their solution.

(E) Improved Public Regulation

Standardized methods of record keeping will promote the intelligent regulation of business. Too frequently our laws along this line have been the result of public indignation, factional agitation or group prejudice. Provision must be made for the collection of facts upon which to base economic legislation in the future.

Statistics derived in a uniform way in each industry and made available to the States can be used along the line of labor legislation, for the prevention of industrial accidents and diseases, the establishment of systems of state insurance and pensions, the treatment of wage disputes and the taking of other measures to further the welfare of the worker. They will aid the States in their regulation of incorporation, their programs of taxation, and promote business regulation which is constructive rather than restrictive in aim.

These figures can be used in building up our tariff schedules in a scientific way. Our federal taxation plans can be revised to apportion the incidence of the burden more equitably upon the several economic groups in the community because their respective abilities to pay will be known more definitely. The regulation of interstate commerce would be facilitated by uniform industrial records, and reasonable and unreasonable restraints of trade could be distinguished more readily. The function of regulation could be made administrative rather than judicial in its operation. If the federal government is to engage in positive assistance, or even own and operate industrial enterprises, let it do so on the basis of facts. Marine insurance and ship subsidy are cases in point.

(F) The Fruits of Industrial Coöperation Can Be Enjoyed

Wasteful duplication of effort, the constant tendency to discord and diminished returns and the lack of coördination which characterize the régime of competition are giving rise to a growing conviction that it is a costly regulator of trade. Coöperation promises many benefits and economies, but it is also fraught with many dangers. It can be permitted only under adequate public regulation; otherwise it might lead to abuses which would violate and stamp out freedom of opportunity; it might lead to the wanton curtailment of service and the arbitrary elevation of prices through monopoly power. Regulation of coöperation should be founded upon uniform records turned in to the regulatory body. It will be recalled that the regulation of the railroads under the act of 1887 was greatly handicapped until the uniform system of accounting was prescribed and adopted under the provisions of the Hepburn Law.

The movement toward industrial coöperation is shown in a concrete manner by the following resolution which also was passed at the recent convention of the chambers of commerce:

The war has demonstrated that through industrial coöperation great economies may be achieved, waste eliminated, and efficiency increased. The nation should not forget, but rather should capitalize these lessons by adapting effective war practices to peace conditions through permitting reasonable coöperations between units of industry under appropriate federal supervision. The conditions incident to the period of readjustment render it imperative that all obstacles to reasonable coöperation be immediately removed through appropriate legislation.

The industries of the country that are progressive are urging coöperation under governmental supervision. To be adequate this supervision should be based on facts, and the business of the coöperating units must be made public, therefore, to a degree which will enable regulation satisfactory to them and to the people at large.

DIFFICULTIES IN THE WAY

The difficulties that confront any agency that undertakes the work of installing a uniform record system are grave indeed. First of all there is the construction of a generally acceptable and workable system,—one that will give accurate results quickly and economically. There is the further problem of securing widespread

adoption of the plan as worked out, and seeing that the orders are followed in letter and spirit by a great number of concerns. The experience recorded would have to be collected and disseminated and be of benefit to the industry and to the public. The reports and advice of the central compiling bureau would have to be recent enough to be news rather than history; the composite figures would have to be taken from businesses operating under the same general conditions and confronted with the same general problems; moreover the periods covered in the reports would have to be of the same duration in order to be comparable.

The Plan Must Await Public Consideration and Approval

Uniformity in record-keeping cannot be installed successfully from above. If this is done the systems will be regarded as burdens,—as more legislative interference. When the majority of American business men concur in the resolutions of the chambers of commerce, the time will be at hand to consider the application of the abstract proposal to have standardized records of industrial experience.